ABSTRACTS

Policy Research Working Paper Series

Numbers 2883–2933

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The World Bank
Research Advisory Staff
October–December 2002

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1. **Prepare a 250–300 word abstract.** The abstract should set out the main questions addressed in the paper and the key findings, putting them (if appropriate) in the context of the relevant literature. For empirical papers, briefly describe the data, including such details as the period covered, the countries or country groups included, the size of the sample, and the type of survey, as appropriate. ***The abstract will be published as submitted.*** To ensure maximum impact for your work, consult existing working paper abstracts and test your abstract by asking a colleague who is not familiar with the paper to read it before submission.

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3. **Submit the abstract and paper, dataset (if any), and clearance memoranda to Boris Pleskovic, Administrator, Research Advisory Staff (DECRA).** The submission can take the form of an email to Boris Pleskovic. Attach the abstract and paper as a single Word document, and any associated dataset as a separate file (Excel or other widely used data format), along with the clearance memoranda. Then print the mail as a cover note and submit it to DECRA along with a camera-ready original (a print out of your paper, exactly as you wish it to appear in print), one photocopy, and the electronic file(s).

DECRA staff screen each paper, may recommend changes in the paper to the submitting author, and advise the submitting manager and author whether the paper has been accepted for publication in the series. **DECRA does not edit or revise the paper.** The author receives a maximum of 100 printed copies of the paper. The paper is released on the Web and printed within approximately a month of its acceptance in the series.

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Produced by the Research Advisory Staff

Policy Research Working Paper Series

Abstracts

Numbers 2883–2933

Environment

Industry

Private sector development

Governance

2883. Assessing the Distributional Impact of Public Policy

B. Essama-Nssah
(September 2002)

Economic development necessarily changes the welfare of socioeconomic groups to various degrees, depending on differences in their social arrangements. The challenge for policymakers is to select the changes that will be most socially desirable. Essama-Nssah demonstrates the usefulness of distributional analysis for social evaluation and, more specifically, for welfare evaluation, using data from the 1994 Integrated Household Survey in Guinea. Because the international community has declared poverty eradication a fundamental objective of development, the author uses a poverty-focused approach to social evaluation based on the *maximin principle*. This principle offers a unifying framework for analyzing the socioeconomic impact of public policy by using a wide variety of evaluation functions, inequality indicators (like the extended Gini coefficient), and poverty indices (such as Sen's index and the members of the Foster-Greer-Thorbecke family). The author also examines, within the context of commodity taxation, how to identify socially desirable policy options using both the dominance criterion and abbreviated social welfare functions. He includes computer routines for calculating various welfare indices and for plotting the relevant concentration curves.

This paper—a product of the Poverty Reduction Group, Poverty Reduction and Economic Management Network—is part of a larger effort in the network to understand the poverty and social impact of public policy. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Oykiao Kootzemew, room MC4-554, telephone 202-473-5075, fax 202-522-3283, email address okootzemew@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at bessamanssah@worldbank.org. (50 pages)

2884. Privatization and Labor Force Restructuring around the World

Alberto Chong and Florencio López-de-Silanes
(September 2002)

Some critics of privatization argue that poor labor force restructuring is a key concern and that governments should establish better retrenchment programs. Using new data from a sample of 400 companies in the world, Chong and López-de-Silanes test competing theories about the wisdom of retrenchment programs and their effect on prices paid by buyers, and rehiring policies by private owners after privatization. The results show that adverse selection plagues retrenchment programs carried out by governments before privatization. Controlling for endogeneity, several labor retrenchment policies yield a negative impact on net privatization prices. In confirmation of the adverse selection argument, various types of voluntary downsizing lead to a higher frequency of rehiring of the same workers by the new private owners. Compulsory skill-based programs are the only type of program that is marginally associated with higher prices and lower rehiring rates after privatization, but the political and economic costs of this policy may make it somewhat impractical. While a qualified nonintervention policy appears to be the safest bet in labor retrenchment before privatization, another one might be to set up a social safety net or labor reallocation program before privatization, and then let the new private owners decide who is redundant and who is not. Setting up the program before privatization may help with the political viability of the process and letting the new owners manage the retrenchment may help avoid adverse selection.

This paper—a product of Public Services, Development Research Group—is part of a larger effort in the group to understand the labor implications of public sector reform. The study was funded by the Bank's Research Support Budget under the research project "Public Sector Downsizing" (RPO 683-69). Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich, room MC3-311, telephone 202-473-7698, fax 202-522-1154, email address hsladovich@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at albertoch@iadb.org or florencio.lopezdesilanes@yale.edu. (40 pages)

2885. Poverty, AIDS, and Children's Schooling: A Targeting Dilemma

Martha Ainsworth and Deon Filmer
(September 2002)

Ainsworth and Filmer analyze the relationship between orphan status, household wealth, and child school enrollment using data collected in the 1990s from 28 countries in Sub-Saharan Africa, Latin America, the Caribbean, and one country in Southeast Asia. The findings point to considerable diversity—so much so that generalizations are not possible. While there are some examples of large differentials in enrollment by orphan status, in the majority of cases the orphan enrollment gap is dwarfed by the gap between children from richer and poorer households. In some cases, even non-orphaned children from the top of the wealth distribution have low enrollments, pointing to fundamental issues in the supply or demand for schooling that are a constraint to higher enrollments of all children. The gap in enrollment between female and male orphans is not much different than the gap between girls and boys with living parents, suggesting that female orphans are not disproportionately affected in terms of their enrollment in most countries. These diverse findings demonstrate that the extent to which orphans are under-enrolled relative to other children is country-specific, at least in part because the correlation between orphan status and poverty is not consistent across countries. Social protection and schooling policies need to assess the specific country situation before considering mitigation measures.

This paper—a product of the Development Research Group, sponsored in part by the Education and Social Protection Teams of the Human Development Network—is part of a larger effort in the Bank to assess the impact of the AIDS epidemic on human development outcomes and poverty reduction policies. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich room MC3-311, telephone 202-473-7698, fax 202-522-1154, email address hsladovich@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at mainsworth @worldbank.org or dfilmer@worldbank.org. (41 pages)

2886. Examining the Feasibility of Livestock Insurance in Mongolia

Jerry R. Skees and Ayurzana Enkh-Amgalan
(September 2002)

Herders in Mongolia have suffered tremendous losses in recent *dzud* (winter disasters), with livestock mortality rates of over 50 percent in some locales. This study examines the feasibility of offering insurance to compensate for animal deaths. Such an undertaking is challenging in any country. Mongolia offers even more challenges given the vast territory in which herders tend over 30 million animals. Traditional approaches that insure individual animals are simply not workable. The opportunities for fraud and abuse are significant. Monitoring costs required to mitigate this behavior would be very high.

This study focuses on the potential for using the livestock mortality rate at a local level (for example, the *sum* or rural district) as the basis for indemnifying herders. Applications of index insurance are growing around the world, although no country has so far implemented such insurance for livestock deaths. But few countries have such frequent and high rates of localized animal deaths as does Mongolia, and it is one of the few countries that perform an animal census every year. This concept may therefore be precisely what is needed to start a social livestock insurance program.

Just as important, the insurance that is used in Mongolia should not interfere with the exceptional efforts that experienced herders take to save animals during severe weather. Using an individual insurance may, in fact, diminish these efforts. Herders may ask, "Why should I work so hard to save my animals if I will simply be compensated for those that are lost?" Since the index insurance would pay all herders in the same region the same rate, the incentives for management to mitigate livestock losses remain strong. No one would reduce their effort to collect on insurance. Those who increase their efforts during a major event (*dzud*) would likely be compensated for this effort even though they do not lose livestock. In some cases, they could reasonably expect to receive payments that would compensate for the added effort or the added cost of trying to save their livestock.

This paper—a product of the Rural Development and Natural Resources Sector Unit, East Asia and Pacific Region—is part of a larger effort in the region to foster secure and sustainable livelihoods through analytical and operational support for risk management and asset diversification strategies. The work described in this paper is finding operational application under the Mongolia Sustainable Livelihoods Project. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Evelyn Laguidao, room MC9-324, telephone 202-458-2450, fax 202-477-2733, email address elaguidao@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. Jerry Skees may be contacted at jskees @qx.net. (36 pages)

2887. The Demand for Commodity Insurance by Developing Country Agricultural Producers: Theory and an Application to Cocoa in Ghana

Alexander Sarris
(September 2002)

Sarris considers the benefit to agricultural producers of commodity price insurance that provides in every year—but in advance of the resolution of production and price uncertainty—a minimum price for a fixed or variable portion of production. Under the assumption that producers do not change their long term production and income diversification pattern, the author suggests a theoretical framework that leads to explicit formulas of the benefit in providing this type of insurance. He shows that this benefit depends not only on the actuarially fair insurance premium, but also on household-specific factors that depend on the attitudes to risk, the consumption smoothing parameters, and the household-specific exposures to income risks. The author applies the theoretical framework for Ghana, using the Ghana Living Standards Survey data to specify various classes of cocoa-producing households and monthly price data for both domestic and international prices, to formulate appropriate models for ascertaining price risks faced by producers. The author gives empirical estimates of the actuarially fair premium, and shows that they are smaller than market-based put option prices from organized exchanges. The overall benefit in providing minimum price insurance to households, however, turns out to be substantially higher than the actuarially fair premiums and the market-based put option prices. This is due to both the magnitude of the uncertainties facing the households, as well as their risk and consumption smoothing behavior.

This paper—a product of Rural Development, Development Research Group—is part of a larger effort in the group to analyze mechanisms for risk mitigation in agriculture. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Maria Fernandez, room MC3-305, telephone 202-473-3766, fax 202-522-1151, email address mfernandez2@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at asarris @hol.gr. (48 pages)

2888. A Poverty Analysis Macroeconomic Simulator (PAMS) Linking Household Surveys with Macro-Models

Luiz A. Pereira da Silva, B. Essama-Nssah, and Issouf Samaké
(September 2002)

The Poverty Analysis Macroeconomic Simulator (PAMS) is a model that links standard household surveys with macro frameworks. It allows users to assess the effect of macroeconomic policies—in particular, those associated with Poverty Reduction Strategies papers—on sectoral employment and income, the incidence of poverty, and income distribution.

PAMS (in Excel) has three interconnected components:

- A standard aggregate macro-framework that can be taken from any macro-consistency model (for example, RMSM-X, 123) to project GDP, national accounts, the national budget, the BoP, price levels, and so on, in aggregate consistent accounts.

- A labor market model breaking down labor categories by skill level and economic sectors whose production total is consistent with that of the macro framework. Individuals from the household surveys are grouped in representative groups of households defined by the labor category of the head of the household. For each labor category, labor demand depends on sectoral output and real wages. Wage income levels by economic sector and labor category can thus be determined. In addition, different income tax rates and different levels of budgetary transfers across labor categories can be added to wage income.
- A model that uses the labor model results for each labor category to simulate the income growth for each individual inside its own group, assumed to be the average of its group. After projecting individual incomes, PAMS calculates the incidence of poverty and the intergroup inequality.

PAMS can produce historical or counterfactual simulations of:

- Alternative growth scenarios with different assumptions for inflation, fiscal, and current account balances. These simulations allow test tradeoffs within a macro stabilization program.
- Different combinations of sectoral growth (agricultural or industrial, tradable or nontradable goods sectors), within a given aggregate GDP growth rate.
- Tax and budgetary transfer policies.

For example, PAMS will simulate a baseline macro-scenario for Burkina Faso corresponding to an existing IMF/World Bank-supported program and introduce changes in tax, fiscal, and sectoral growth policies to reduce poverty and inequality more effectively than the base scenario. So, the authors argue that there are several possible "equilibria" in terms of poverty and inequality within the same macro framework.

This paper—a joint product of the Office of the Senior Vice President and Chief Economist, Development Economics, and the Poverty Reduction Group, Poverty Reduction and Economic Management Network—is part of a larger effort in the Bank to provide better tools to evaluate the poverty impact of economic policies. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Roula Yazigi, room MC4-328, telephone 202-473-7176, fax 202-522-1158, email address ryazigi@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at lpereiradasilva@worldbank.org, bessamanssah@worldbank.org, or isamake@worldbank.org. (67 pages)

2889. Environmental Performance Rating and Disclosure: China's Green-Watch Program

Hua Wang, Jun Bi, David Wheeler, Jinnan Wang, Dong Cao, Genfa Lu, and Yuan Wang (September 2002)

This paper describes a new incentive-based pollution control program in China in which the environmental performance of firms is rated and reported to the public. Firms are rated from best to worst using five colors—green, blue, yellow, red, and black—and the ratings are disseminated to the public through the media. The impact has been substantial, suggesting that public disclosure provides a significant incentive for firms to improve their environmental performance.

The paper focuses on the experience of the first two disclosure programs, in Zhenjiang, Jiangsu Province and Hohhot, Inner Mongolia. Successful implementation of these programs at two very different levels of economic and institutional development suggests that public disclosure should be feasible in most of China. The Zhenjiang and Hohhot experiences have also shown that performance disclosure can significantly reduce pollution, even in settings where environmental nongovernmental organizations are not very active and there is no formal channel for public participation in environmental regulation.

This paper—a product of Infrastructure and Environment, Development Research Group—is part of a larger effort in the group to develop more cost-effective approaches to the regulation of externalities. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Yasmin D'Souza, room MC2-622, telephone 202-473-1449, fax 202-522-3230, email address ydsouza@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at hwang1@worldbank.org, jbi@worldbank.org, or dwheeler1@worldbank.org. (28 pages)

2890. Sector Organization, Governance, and the Inefficiency of African Water Utilities

Antonio Estache and Eugene Kouassi (September 2002)

Estache and Kouassi analyze the determinants of the efficiency levels reached by 21 African water utilities. They assess efficiency through the estimation of a production frontier for the sector in Africa. The efficiency estimates confirm much of the common perceptions from partial productivity indicators. They point to a great heterogeneity in the African water utilities' performances, the predominance of constant returns to scale, and the great rate of technological progress. And the authors show that the institutional capacity of the country, as well as its governance quality, are significant driving factors in the performance of each firm.

This paper—a product of the Governance, Regulation, and Finance Division, World Bank Institute—is part of a larger effort in the institute to promote the understanding of regulatory issues. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Gabriela Chenet-Smith, room J3-147, telephone 202-473-6370, fax 202-676-9874, email address gchenet@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. Antonio Estache may be contacted at aestache@worldbank.org. (21 pages)

2891. Trends in the Education Sector from 1993–98

Nga Nguyet Nguyen (September 2002)

Vietnam has achieved remarkably high rates of school enrollment and has maintained good social indicators (infant and under-five mortality rates, life expectancy, fertility rate, child nutrition, and access to basic services) compared to other countries with similar low income per capita.

Nga documents and analyzes changes in enrollment and education finance in Vietnam from 1993–98. Enrollment rates increased substantially, but the increases were not equally spread across different income groups, regions, gender, and ethnic groups. The higher the level of education, the larger the gap in school enrollment among different socioeconomic groups. Although school fees were no longer compulsory at the primary level, households paid for many other school-related items, such as books, uniforms, private tutors, lunch, and transportation. These costs are a significant financial burden on the poor.

On the other hand, there is considerable variation in public spending per student across regions that, when coupled with variation in enrollment rates across regions, resulted in a not pro-poor public spending pattern, although public spending on primary education was neutral in 1998.

Finally, Nguyen investigates whether rates of return to education in the private wage sector changed in the 1990s. She concludes that returns to schooling increased substantially between 1992–93 and 1997–98, especially at the upper secondary education and university levels.

This paper—a product of Macroeconomics and Growth, Development Research Group—is part of a larger effort in the group to study household welfare and poverty reduction in Vietnam. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Emily Khine, room MC3-347, telephone 202-473-7471, fax 202-522-3518, email address kkhine@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at nnga @worldbank.org. (28 pages)

2892. Productivity or Endowments? Sectoral Evidence for Hong Kong's Aggregate Growth

Hiau Looi Kee
(September 2002)

Kee provides sectoral evidence that sheds new light on the current debate regarding the sources of growth of the East Asian miracle. The author tests both the productivity-driven and endowment-driven hypotheses using Hong Kong's sectoral data. The results show that most of the growth in the services sector is driven by the rapidly accumulating capital endowments, and not by productivity growth. In addition, productivity growth in the manufacturing sector is also unimpressive. The manufacturing sector is more labor intensive and its growth is hindered by the reallocation of resources into the services sector as a result of the growth of capital endowments and imports. Overall, sectoral evidence supports the endowment-driven hypothesis for Hong Kong's aggregate growth.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to study the relationship between trade and growth. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at hlkee@worldbank.org. (30 pages)

2893. Banking on Foreigners: The Behavior of International Bank Lending to Latin America, 1985–2000

Maria Soledad Martinez Peria, Andrew Powell, and Ivanna Vladkova Hollar
(September 2002)

Rising international bank financing to developing countries has fueled a debate on the behavior of these claims. The authors analyze claims from seven home (lender) countries on ten host (borrower) countries in Latin America. They find that banks transmit shocks from their home countries and changes in their claims on other countries spill over to individual hosts. However, lending has become less "indiscriminate" and more responsive to host conditions over time. Responsiveness to the latter becomes less "pro-cyclical" as exposure increases. Finally, foreign bank lending reacts more to positive than to negative host shocks and is not significantly curtailed during crises.

This paper—a product of Finance, Development Research Group—is part of a larger effort in the group to study foreign bank lending. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Agnes Yaptenco, room MC3-446, telephone 202-473-1823, fax 202-522-1155, email address ayaptenco @worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at mmartinezperia @worldbank.org, apowell@utdt.edu, or ivladkovahollar@imf.org. (37 pages)

2894. Telecommunications Sector Reforms in Senegal

Jean-Paul Azam, Magueye Dia, and Tchétché N'Guessan
(September 2002)

This paper analyzes Senegal's experience with telecommunications liberalization and privatization. Senegal privatized its incumbent operator in 1997, and granted the newly privatized firm seven years of fixed-line exclusivity while introducing "managed competition" in the cellular market and free competition in value-added services (VAS). By May 2001, two cellular operators, a number of VAS providers, and thousands of retailers operating telecenters had entered the market. Reform has thus significantly changed the landscape of Senegal's telecommunications sector and has brought with it tremendous improvement in sector performance. Between 1997 and 2001, fixed-line telephone penetration grew from 1.32 to 2.45 per hundred people, while mobile penetration skyrocketed from 0.08 to 4.04. But it is still too early to assess the validity of granting fixed-line exclusivity to the incumbent operator. While penetration increased, the operator did not meet objectives regarding rural telephony. Moreover, fixed-line penetration increased in areas where the operator faced competition from a mobile provider.

This paper—a product of Regulation and Competition Policy, Development Research Group—is part of a larger effort in the group to promote telecommunications competition, liberalization, and privatization in Africa. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Sintim-Aboagye, room MC3-422, telephone 202-473-8526, fax 202-522-1155, email address psintimaboagye@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. Jean-Paul Azam may be contacted at azam@univ_tlse.fr. (47 pages)

2895. Telecommunications Reform in Côte d'Ivoire

Jean-Jacques Laffont and Tchétché N'Guessan
(September 2002)

This paper analyzes Côte d'Ivoire's experience with telecommunications liberalization and privatization. Côte d'Ivoire privatized its incumbent operator in 1997, and granted the newly privatized firm seven years of fixed-line exclusivity while introducing "managed competition" in the cellular market and free competition in value-added services (VAS). By March 2001, three cellular operators and a number of VAS providers had entered the market. Reform has thus significantly changed the landscape of Côte d'Ivoire's telecommunications sector and has brought with it tremendous improvement in sector performance. Between 1997 and 2001, fixed-line telephone penetration grew from 1.03 to 1.80 per hundred people, while mobile penetration skyrocketed from 0.26 to 4.46. But it is still too early to assess the validity of granting exclusivity to the incumbent operator. While penetration increased, the operator did not meet objectives regarding rural telephony and service quality. Moreover, fixed-line penetration increased in areas where the operator faced competition from mobile providers.

This paper—a product of Regulation and Competition Policy, Development Research Group—is part of a larger effort in the group to promote telecommunications competition, liberalization, and privatization in Africa. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Sintim-Aboagye, room MC3-422, telephone 202-473-8526, fax 202-522-1155, email address psintimaboagye@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. Jean-Jacques Laffont may be contacted at laffont@cict.fr. (56 pages)

2896. The Wage Labor Market and Inequality in Vietnam in the 1990s

John Luke Gallup
(September 2002)

Has the expansion of wage employment in Vietnam exacerbated social inequalities, despite its contribution to income growth? Gallup uses the two rounds of the Vietnamese Living Standards Survey (VLSS) to evaluate the contribution of wage employment to inequality and income growth over the period of rapid economic growth in the 1990s following market reforms. If Vietnam sustains its economic development in the future, wage employment will become an ever more important source of household income as family farms and self-employed household enterprises become less prevalent. Observing the recent evolution of wage employment compared with farm and nonfarm self-employment provides clues as to how economic development will change Vietnamese society, in particular its impact on income inequality within and between communities.

Gallup shows that standard methods for calculating income inequality can be severely biased due to measurement error when decomposing the contribution of different sectors, regions, or groups to overall inequality. A new method for consistent decomposition of inequality by income source shows that despite the rapid growth of wages in the 1990s, wage inequality fell modestly. Contrary to the results of uncorrected methods, wage employment contributes a roughly similar amount to overall income inequality as other nonagricultural employment (household enterprise and remittances, mainly). Agricultural income actually reduces overall income inequality because inequality between agricultural households is much lower than inequality between nonagricultural households, and agricultural income has a lower correlation with other income sources. Wage employment has not been the locus of growing disparity between the haves and the have-nots in Vietnam.

A declining share of agriculture as the economy grows in Vietnam means that income inequality will rise, assuming that within-sector inequality does not change. This rising inequality, due to the shrinking share of agriculture, will be difficult to avoid without giving up economic growth and rapid poverty reduction in Vietnam. Historically, the process of economic development has always brought about a transition out of small farms and household enterprises into wage employment as worker productivity increases and non-household enterprises dominate the economy.

This paper—a product of Macroeconomics and Growth, Development Research Group—is part of a larger effort in the group to study household welfare and poverty reduction in Vietnam. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Emily Khine, room MC3-347, telephone 202-473-7471, fax 202-522-3518, email address kkhine@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at jgallup @main.rr.com. (42 pages)

2897. Gender Dimensions of Child Labor and Street Children in Brazil

Emily Gustafsson-Wright and Hnin Hnin Pyne
(October 2002)

Gustafsson-Wright and Pyne review child labor and the situation of street children in Brazil from a gender perspective. Relying primarily on Brazil's national household survey for 1996, the authors examine various dimensions of child labor by gender, including participation, intensity, and type of activities; the relationship between child labor, education, and future earnings; and the risks of child labor to health and well-being. They also summarize approaches to prevent and eliminate child labor and street children in Brazil.

The authors find that more boys than girls work in Brazil especially in rural areas where boys are concentrated in the agricultural sector, that many children both work and attend school, and that girls attain higher levels of education than boys on average, even when considering number of hours worked. The exception is the 11–14 category. They also find that an individual's earnings are correlated with age of entry into the labor market. The earlier a child begins to work, the lower his or her earnings. And girls are more adversely affected by early labor force entry than boys, with the gender differential increasing the earlier a child begins to work.

Taking poverty as the primary contributor to child labor, government programs to combat child labor are well designed in that they compensate families for a child's foregone earnings and address family factors that lead to poverty. However, programs could be improved by explicitly considering the gender dimensions of child labor. The authors point to the need for analysis of the impact of child labor on health, and specifically to the gender and sex-differentiated impacts. They suggest the need to address gender in intervention strategies for street children, as well as research on child labor in domestic service where girls are overrepresented.

This paper—a product of the Gender Sector Unit, Latin America and the Caribbean Region—is part of a larger effort in the region to identify and address gender issues relevant to development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Maria Correia, room I8-115, telephone 202-473-9394, fax 202-676-0199, email address mcorreia@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at egustafsson @worldbank.org or hpyne@worldbank.org. (30 pages)

2898. Relative Returns to Policy Reform: Evidence from Controlled Cross-Country Regressions

Alexandre Samy de Castro, Ian Goldin, and Luiz A. Pereira da Silva
(October 2002)

De Castro, Goldin and Pereira da Silva aim at contributing to understand the dispersion of returns from policy reforms using cross-country regressions. The authors compare the "before reform" with "after reform" GDP growth outcome of countries that undertook import-liberalization and fiscal policy reforms. They survey a large sample (about 54) of developing countries over the period 1980–99. The benefits of openness to trade and fiscal prudence have been extensively identified in the growth literature, but the evidence from simple cross-section analysis can sometimes be inconclusive and remains vulnerable to criticism on estimation techniques, such as identification, endogeneity, multicolinearity, and the quality of the data.

The authors use a different analytical framework that establishes additional controls. First, they construct a counterfactual control group. These are countries that—under specific thresholds—did not introduce policy reforms under scrutiny. Second, the authors also try to use the most appropriate variable of policy reform, for example, exogenous changes in import-tariffs instead of the endogenous sum of all trade flows. Third, the authors try to base the before-after reform comparison on the most accurate date for the beginning of a policy reform period (instead of comparing averages over fixed intervals of time). Once these controls are set, they explain the difference between average GDP growth rates during the country-specific post and the pre-reform periods, relative to the average GDP growth of the relevant control group.

The explanatory variables in the regressions include the standard growth-regression controls. The results are the following:

• With a better measurement and timing of the policy reforms, the growth effect (the "returns on reform") is generally smaller than in previous papers.

• There is evidence of contingent relationships between policy and growth, corresponding to the country's size, its export profile, and its governance.

• Within the group of policy reformers, some countries have exhibited a relatively weaker growth response.

Overall, the findings suggest that more accurate measurement and definition of the timing of reforms does not strengthen the significance of the effects of reforms on GDP growth. In fact, the effects are weaker than indicated in most cross-section studies. This suggests that the policy implications to be derived from these relationships should be treated with even more caution than previously thought.

This paper—a product of the Office of the Senior Vice President and Chief Economist, Development Economics—is part of a larger effort in the Bank to understand relative returns to policy reform. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Roula Yazigi, room MC4-328, telephone 202-473-7176, fax 202-522-1158, email address ryazigi@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at adecastro@worldbank.org, igoldin @worldbank.org, or lpereiradasilva @worldbank.org. (59 pages)

2899. The Political Economy of Fiscal Policy and Economic Management in Oil-Exporting Countries

Benn Eifert, Alan Gelb, and Nils Borje Tallroth
(October 2002)

Despite massive oil rent incomes since the early 1970s, the economic performance of oil-exporting countries—with notable exceptions—is poor. While there is extensive literature on the management of oil resources, analysis of the underlying political determinants of this poor performance is more sparse. Drawing on concepts from the comparative institutionalist tradition in political science, Eifert, Gelb, and Tallroth develop a generalized typology of political states that is used in analyzing the political economy of fiscal and economic management in oil-exporting countries with widely differing political systems. In assessing performance, the authors focus on issues of long-term savings, economic stabilization, and efficient use of oil rents.

The comparisons of country experiences suggest that countries with strong, mature, democratic traditions have advantages in managing oil rents well because of their ability to reach consensus, their educated and informed electorates, and a high level of transparency that facilitates clear decisions on how to use rents over a long horizon. Yet even these systems, ensuring cautious use of oil income is a continuing struggle. Traditional and modernizing autocracies have also demonstrated their ability to sustain long decision horizons and implement developmental policies. But resistance to transparency and the danger of oil-led spending and expenditure commitments becoming the major legitimizing force behind the state may pose risk to the long-term sustainability of their current development strategies. In contrast, little positive effect can be expected from the politically unstable, predatory autocracies, which typically have very short policy horizons and sometimes the characteristics of "roving bandit" regimes. Factional democracies, with weak political parties and highly personalized politics, present particular challenges because they lack a sufficiently effective political system to create a consensus among strong competing interests. Special attention will be needed to increase transparency and raise public awareness in these countries. And oil rent makes it more difficult to sustain a constituency in favor of sound, longer-run economic management because it weakens incentives for agents to support checks and balances that impinge on their individual plans to appropriate the rents. The country comparisons further demonstrate that technical solutions—such as the establishment of oil stabilization funds and budgetary reforms—to enhance transparency and efficiency in the use of oil rents will not work well unless constituencies can be developed in support of such measures.

This paper—a product of the Office of the Chief Economist, Africa Region—is part of a larger effort in the region to improve the management of public finance, including revenues from natural resources. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Joy Schwartz, room J5-284, telephone 202-473-2250, fax 202-473-8276, email address jschwartz2@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at agelb@worldbank.org, or ntallroth@worldbank.org. (35 pages)

2900. Economic Structure, Productivity, and Infrastructure Quality in Southern Mexico

Uwe Deichmann, Marianne Fay, Jun Koo, and Somik V. Lall
(October 2002)

There are large and sustained differences in the economic performance of subnational regions in most countries. Deichmann, Fay, Koo, and Lall examine the economic structure and productivity in Southern Mexico and compare it with the rest of the country. The authors use firm level data from Mexican manufacturing to test the relative importance of firm level characteristics (such as human capital and technology adoption) compared with external characteristics (such as infrastructure quality and regulatory environment) in explaining productivity differentials.

The authors find that the economic structure of Southern Mexico is considerably different from the rest of the country, with the economic landscape dominated by micro enterprises and a relative specialization in low productivity activities. This, coupled with low skill levels and fewer skill upgrading opportunities, reduces the performance of Southern firms. Productivity differentials between Southern firms and others, however, only exist for micro enterprises. The econometric analysis shows that while employee training and technology adoption enhance productivity, access to markets by improving transport infrastructure that link urban areas also have important productivity effects.

This paper—a joint product of Infrastructure and Environment, Development Research Group, and the Finance, Private Sector, and Infrastructure Unit, Latin America and the Caribbean Region—is part of a larger effort in the Bank to understand the role of economic geography and urbanization in the development process. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Yasmin D'Souza, room MC2-622, telephone 202-473-1449, fax 202-522-3230, email address ydsouza@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at udeichmann@worldbank.org, mfay@worldbank.org, or slall1@worldbank.org. (29 pages)

2901. Decentralized Creditor-Led Corporate Restructuring: Cross-Country Experience

Marinela E. Dado and Daniela Klingebiel
(October 2002)

Countries that have experienced banking crises have adopted one of two distinct approaches toward the resolution of nonperforming assets—a centralized or a decentralized solution. A centralized approach entails setting up a government agency—an asset management company—with the full responsibility for acquiring, restructuring, and selling of the assets. A decentralized approach relies on banks and other creditors to manage and resolve nonperforming assets.

Dado and Klingebiel study banking crises where governments adopted a decentralized, creditor-led workout strategy following systemic crises. They use a case study approach and analyze seven banking crises in which governments mainly relied on banks to resolve nonperforming assets. The study suggests that out of the seven cases, only Chile, Norway, and Poland successfully restructured their corporate sectors with companies attaining viable financial structures. The analysis underscores that as in the case of a centralized strategy the prerequisites for a successful decentralized restructuring strategy are manifold. The successful countries significantly improved the banking system's capital position, enabling banks to write down loan losses; banks as well as corporations had adequate incentives to engage in corporate restructuring; and ownership links between banks and corporations were limited or severed during crises.

This paper—a product of the Financial Sector Operations and Policy Department—is part of a larger effort in the department to examine the resolution of financial crises. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Rose Vo, room MC9-624, telephone 202-473-3722, fax 202-522-2031, email address hvo1@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at mdado@worldbank.org or dklingebiel@worldbank.org. (53 pages)

2902. Aid, Policy, and Growth in Post-Conflict Societies

Paul Collier and Anke Hoeffler
(October 2002)

Countries emerging from civil war attract both aid and policy advice. This paper provides the first systematic empirical analysis of aid and policy reform in the post-conflict growth process. It is based on a comprehensive data set of large civil wars and covers 27 countries that were in their first decade of post-conflict economic recovery during the 1990s.

Collier and Hoeffler first investigate whether the absorptive capacity for aid is systematically different in post-conflict countries. They find that during the first three post-conflict years, absorptive capacity is no greater than normal, but that in the rest of the first decade it is approximately double its normal level. So ideally, aid should phase in during the decade. Historically, aid has not, on average, been higher in post-conflict societies, and it has tended to taper out over the course of the decade.

The authors then investigate whether the contribution of policy to growth is systematically different in post-conflict countries, and in particular, whether particular components of policy are differentially important. For this they use the World Bank policy rating database. The authors find that growth is more sensitive to policy in post-conflict societies. Comparing the efficacy of different policies, they find that social policies are differentially important relative to macroeconomic policies. However, historically, this does not appear to have been how policy reform has been prioritized in post-conflict societies.

This paper—a product of the Development Research Group—is part of a larger effort in the group to study the economics of conflict. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Audrey Kitson-Walters, room MC3-527, telephone 202-473-3712, fax 202-522-1150, email address akitsonwalters@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. Paul Collier may be contacted at pcollier@worldbank.org. (24 pages)

2903. Financial Globalization: Unequal Blessings

Augusto de la Torre, Eduardo Levy Yeyati, and Sergio L. Schmukler
(October 2002)

De la Torre, Yeyati, and Schmukler present a framework to analyze financial globalization. They argue that financial globalization needs to take into account the relation between money (particularly in its role as store of value), asset and factor price flexibility, and contractual and regulatory institutions. Countries that have the "blessed trinity" (international currency, flexible exchange rate regime, and sound contractual and regulatory environment) can integrate successfully into the world financial markets. But developing countries normally display the "unblessed trinity" (weak currency, fear of floating, and weak institutional framework).

The authors define and discuss two alternative avenues (a "dollar trinity" and a "peso trinity") for developing countries to safely embrace international financial integration while the blessed trinity remains beyond reach.

This paper—a product of the Office of the Chief Economist, Latin America and the Caribbean Region, and the Investment Climate Team, Development Research Group—is part of a larger effort in the Bank to assess the implications of financial globalization for emerging economies. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Soto, room I8-018, telephone 202-473-7892, fax 202-522-7528, email address psoto@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at adelatorre@worldbank.org, ely@utdt.edu, or sschmukler@worldbank.org. (19 pages)

2904. Law and Finance: Why Does Legal Origin Matter?

Thorsten Beck, Asli Demirgüç-Kunt, and Ross Levine
(October 2002)

A growing body of work suggests that cross-country differences in legal origin help explain differences in financial development. Beck, Demirgüç-Kunt, and Levine assess two theories of why legal origin influences financial development. First, the "political" channel stresses that (1) legal traditions differ in the priority they give to the rights of individual investors compared with the state, and that (2) this has repercussions for the development of property rights and financial markets. Second, the "adaptability" channel holds that (1) legal traditions differ in their ability to adjust to changing commercial circumstances, and (2) legal systems that adapt quickly to minimize the gap between the contracting needs of the economy and the legal system's capabilities will foster financial development more effectively than would more rigid legal traditions. The authors use historical comparisons and cross-country regressions to assess the validity of these two channels.

This paper—a product of Finance, Development Research Group—is part of a larger effort in the group to understand the determinants of financial development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Kari Labrie, room MC3-456, telephone 202-473-1001, fax 202-522-1155, email address klabrie@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at tbeck@worldbank.org, ademirguckunt@worldbank.org, or rlevine@csom.umn.edu. (43 pages)

2905. Financing Patterns Around the World: The Role of Institutions

Thorsten Beck, Asli Demirgüç-Kunt, and Vojislav Maksimovic
(October 2002)

Using a firm-level survey database covering 48 countries, Beck, Demirgüç-Kunt, and Maksimovic investigate whether differences in financial and legal development affect the way firms finance their investments. The results indicate that external financing of investments is not a function of institutions, although the form of external finance is. The authors identify two explanations for this. First, legal and financial institutions affect different types of external finance in offsetting ways. Second, firm size is an important determinant of whether firms can have access to different types of external finance. Larger firms with financing needs are more likely to use external finance compared with small firms. The results also indicate that these firms are more likely to use external finance in more developed financial systems, particularly debt and equity finance. The authors also find evidence consistent with the pecking order theory in financially developed countries, particularly for large firms.

This paper—a product of Finance, Development Research Group—is part of a larger effort in the group to understand firms' access to financial services. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Kari Labrie, room MC3-456, telephone 202-473-1001, fax 202-522-1155, email address klabrie@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at tbeck@worldbank.org, ademirguckunt@worldbank.org, or vmaksimovic@rhsmith.umd.edu. (54 pages)

2906. Macroeconomic Effects of Private Sector Participation in Latin America's Infrastructure

Lourdes Trujillo, Noelia Martín, Antonio Estache, and Javier Campos
(October 2002)

Trujillo, Martín, Estache, and Campos provide empirical evidence on the impact that private participation in infrastructure has had on key macroeconomic variables in a sample of 21 Latin American countries from 1985–98. Specifically, they look at the effects on GDP per capita, current public expenditures, public investment, and private investment, controlling for country effects and institutional factors. The authors also investigate the relevance of the specific contractual form of private participation contracts on these variables and show differentiated effects according to contract types.

The results suggest that:

- Private sector involvement in utilities and transport have some, but not impressive, positive effects on GDP per capita.
- There is some degree of crowding-out of private investment resulting from greenfield projects in utilities, and delayed crowding-in from concessions in transport.
- There is crowding-in of public investment by private participation in utilities, while there is crowding-out by increased private investment in transport.
- Private participation in utilities decreases recurrent expenditures, while in transport it results in an increase.

The net effect on the public sector account is uncertain, but this uncertainty is a major risk. The revelation of this risk may be the main contribution of this paper since it is inconsistent with the fiscal gains expected by many policymakers as they engage in infrastructure privatization programs.

This paper—a joint product of the Governance, Regulation, and Finance Division, World Bank Institute, and Finance, Private Sector, and Infrastructure Unit, Latin America and the Caribbean Region—is part of a larger effort in the Bank to increase understanding of infrastructure regulation. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Gabriela Chenet-Smith, room J3-304, telephone 202-473-6370, fax 202-676-9874, email address gchenet@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. Antonio Estache may be contacted at aestache@worldbank.org. (26 pages)

2907. The Case for International Coordination of Electricity Regulation: Evidence from the Measurement of Efficiency in South America

Antonio Estache, Martin A. Rossi, and Christian A. Ruzzier
(October 2002)

A decade long experience shows that monitoring the performance of public and private monopolies in South America is proving to be the hard part of the reform process. The operators who control most of the information needed for regulatory purposes have little interest in volunteering their dissemination unless they have an incentive to do so. Estache, Rossi, and Ruzzier argue that, in spite of, and maybe because of, a much weaker information base and governance structure, South America's electricity sector could pursue an approach that relies on performance rankings based on comparative efficiency measures. The authors show that with the rather modest data currently available publicly, such an approach could yield useful results. They provide estimates of efficiency levels in South America's main distribution companies between 1994 and 2000. Moreover, the authors show how relatively simple tests can be used by regulators to check the robustness of their results and strengthen their position at regulatory hearings.

This paper—a joint product of the Governance, Regulation, and Finance Division, World Bank Institute, and the Finance, Private Sector, and Infrastructure Unit, Latin America and the Caribbean Region—is part of a larger effort in the institute to increase understanding of infrastructure regulation. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Gabriela Chenet-Smith, room J3-304, telephone 202-473-6370, fax 202-676-9874, email address gchenet@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at aestache@worldbank.org or martin.rossi@economics.ox.ac.uk. (34 pages)

2908. The Africa Growth and Opportunity Act and Its Rules of Origin: Generosity Undermined?

Aaditya Mattoo, Devesh Roy, and Arvind Subramanian
(October 2002)

This paper describes the United States' recently enacted Africa Growth and Opportunity Act (AGOA) and assesses its quantitative impact on African exports. The AGOA expands the scope of preferential access of Africa's exports to the United States in key areas such as clothing. However, its medium-term benefits—estimated at about US$100–$140 million, an 8–11 percent addition to current nonoil exports—would have been nearly five times greater ($540 million) if no restrictive conditions had been imposed on the terms of market access. The most important of these conditions are the rules of origin with which African exporters of clothing must comply to benefit from duty-free access.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to assess the implications of preferential access for developing countries. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at amattoo@worldbank.org, roy@econ.bsos.umd.edu, or asubramanian@imf.org. (35 pages)

2909. An Assessment of Telecommunications Reform in Developing Countries

Carsten Fink, Aaditya Mattoo, and Randeep Rathindran
(October 2002)

Fink, Mattoo, and Rathindran analyze the effect of policy reform in basic telecommunications on sectoral performance using a new panel data set for 86 developing countries across Africa, Asia, the Middle East, and Latin America and the Caribbean over the period 1985 to 1999. The authors address three questions:

• What impact do specific policy changes—relating to ownership and competition—have on sectoral performance?

• How is the impact of change in any one policy affected by the implementation of the other, and by the overall regulatory framework?

• Does the sequence in which reforms are implemented affect performance?

The authors find that both privatization and competition lead to significant improvements in performance. But a comprehensive reform program, involving both policies and the support of an independent regulator, produced the largest gains—an 8 percent higher level of mainlines and a 21 percent higher level of productivity compared to years of partial and no reform. Interestingly, the sequence of reform matters: mainline penetration is lower if competition is introduced after privatization, rather than at the same time. The authors also find that autonomous factors, such as technological progress, have a strong influence on telecommunications performance, accounting for an increase of 5 percent a year in teledensity and 9 percent in productivity over the period 1985 to 1999.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to improve our understanding of services reform. This research is supported in part by a grant from the United Kingdom Department for International Development. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt @worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at cfink@worldbank.org, amattoo@worldbank.org, rrathindran @worldbank.org. (37 pages)

2910. Boondoggles and Expropriation : Rent-seeking and Policy Distortion when Property Rights are Insecure

Philip Keefer and Stephen Knack
(October 2002)

Most analyses of property rights and economic development point to the negative influence of insecure property rights on private investment. Keefer and Knack focus instead on the largely unexamined effects of insecure property rights on government policy choices. They identify one significant anomaly—dramatically higher public investment in countries with insecure property rights—and use it to make the following broad claims about insecure property rights:

• They increase rent-seeking.

• They may reduce the incentives of governments to use tax revenues for productive purposes, such as public investment.

• They do so whether one regards the principal problem of insecure property rights as the maintenance of law and order, which government spending can potentially remedy, or as the threat of expropriation by government itself, and therefore not remediable by government spending.

The authors present substantial empirical evidence to support these claims.

This paper—a product of the Investment Climate and Public Services Teams, Development Research Group—is part of a larger effort in the group to investigate the institutional roots of effective government policy. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Sintim-Aboagye, room MC3-422, telephone 202-473-8526, fax 202-522-1155, email address psintimaboagye@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at pkeefer @worldbank.org or sknack@worldbank.org. (30 pages)

2911. Micro-Level Estimation of Welfare

Chris Elbers, Jean O. Lanjouw, and Peter Lanjouw
(October 2002)

The authors construct and derive the properties of estimators of welfare that take advantage of the detailed information about living standards available in small household surveys and the comprehensive coverage of a census or large sample. By combining the strengths of each, the estimators can be used at a remarkably disaggregated level. They have a clear interpretation, are mutually comparable, and can be assessed for reliability using standard statistical theory.

Using data from Ecuador, the authors obtain estimates of welfare measures, some of which are quite reliable for populations as small as 15,000 households—a "town." They provide simple illustrations of their use. Such estimates open up the possibility of testing, at a more convincing intra-country level, the many recent models relating welfare distributions to growth and a variety of socioeconomic and political outcomes.

This paper—a product of the Poverty Team, Development Research Group—is part of a larger effort in the group to develop tools for the analysis of poverty and income distribution. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, room MC3-556, telephone 202-473-3902, fax 202-522-1153, email address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at celbers@econ.vu.nl, jlanjouw@brookings.edu, or planjouw@worldbank.org. (57 pages)

2912. Short-Run Pain, Long-Run Gain: The Effects of Financial Liberalization

Graciela Laura Kaminsky
and Sergio L. Schmukler
(October 2002)

Kaminsky and Schmukler examine the short- and long-run effects of financial liberalization on capital markets. To do so, they construct a new comprehensive chronology of financial liberalization in 28 developed and emerging economies since 1973. The authors also construct an algorithm to identify booms and busts in stock market prices. The results indicate that financial liberalization is followed by more pronounced boom-bust cycles in the short run. But financial liberalization leads to more stable markets in the long run. Finally, the authors analyze the sequencing of liberalization and institutional reforms to understand the contrasting short- and long-run effects of liberalization.

This paper—a product of the Investment Climate Team, Development Research Group—is part of a larger effort in the group to understand financial globalization and integration. The study was jointly funded by the Latin American Regional Studies Program and the Research

Support Budget under the research project "Understanding Capital Market Crises in Emerging Economies." Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Emily Khine, room MC3-347, telephone 202-473-7471, fax 202-522-3518, email address kkhine@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at graciela @gwu.edu or sschmukler@worldbank.org. (66 pages)

2913. Financial Development and Dynamic Investment Behavior: Evidence from Panel Vector Autoregression

Inessa Love and Lea Zicchino
(October 2002)

Love and Zicchino apply vector autoregression to firm-level panel data from 36 countries to study the dynamic relationship between firms' financial conditions and investment. They argue that by using orthogonalized impulse-response functions they are able to separate the "fundamental factors" (such as marginal profitability of investment) from the "financial factors" (such as availability of internal finance) that influence the level of investment. The authors find that the impact of the financial factors on investment, which they interpret as evidence of financing constraints, is significantly larger in countries with less developed financial systems. The finding emphasizes the role of financial development in improving capital allocation and growth.

This paper—a product of Finance, Development Research Group—is part of a larger effort in the group to study access to finance. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Kari Labrie, room MC3-456, telephone 202-473-1001, fax 202-522-1155, email address klabrie@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at ilove@worldbank.org or lea.zicchino@bankofengland.co.uk. (32 pages)

2914. The Impact of Cash Budgets on Poverty Reduction in Zambia: A Case Study of the Conflict between Well-Intentioned Macroeconomic Policy and Service Delivery to the Poor

Hinh T. Dinh, Abebe Adugna, and Bernard Myers
(October 2002)

Facing runaway inflation and budget discipline problems in the early 1990s, the Zambian government introduced the so-called *cash budget* in which government domestic spending is limited to domestic revenue, leaving no room for excess spending. Dinh, Adugna, and Myers review Zambia's experience during the past decade, focusing on the impact of the cash budget on poverty reduction.

They conclude that after some initial success in reducing hyperinflation, the cash budget has largely failed to keep inflation at low levels, created a false sense of fiscal security, and distracted policymakers from addressing the fundamental issue of fiscal discipline. More important, it has had a deeply pernicious effect on the quality of service delivery to the poor. Features inherent to the cash budgeting system facilitated a substantial redirection of resources away from the intended targets, such as agencies and ministries that provide social and economic services. The cash budget also eliminated the predictability of cash releases, making effective planning by line ministries difficult. Going forward, Zambia must adopt measures that over time will restore the commitment to budget discipline and shelter budget execution decisions from the pressures of purely short-term exigencies.

This paper—a product of the Poverty Reduction and Economic Management Division 1, Africa Region—is part of a larger effort in the region to review public expenditure management. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Dotilda Sidibe, mail stop J11-1106, telephone 202-473-5074, fax 202-473-8179, email address dsidibe @worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. Hinh Dinh may be contacted at hdinh@worldbank.org. (33 pages)

2915. Federal Politics and Budget Deficits: Evidence from the States of India

Stuti Khemani
(October 2002)

Khemani tests two predictions implied by models of the common-pool game in federations where subnational governments are more likely to have higher deficits because they do not internalize the macroeconomic effects of fiscal profligacy. First, subnational governments that belong to the same political party as the central government have lower spending and deficits because they are more likely to be influenced to internalize the macroeconomic effects of additional local spending. Second, subnational governments that are more dependent on intergovernmental transfers have higher spending and deficits.

The author finds that in 15 major states of India over the period 1972–95, states have substantially higher spending and deficits (higher by about 10 percent of the sample average) when their government belongs to the same party as that governing at the center. Intergovernmental grants tend to have a counter-intuitive negative effect on spending and deficits. The additional deficit of affiliated states is financed almost entirely by additional loans from the central government (as opposed to the market), leading to the author's interpretation that similar political considerations influence the distribution of deficits across states as they do other intergovernmental grants. Khemani argues that the evidence from India, in contrast with broader international evidence, indicates that the effect of fiscal institutions in a federation is sensitive to underlying political incentives. This underscores the overall importance of political institutions in determining the consolidated government deficit, relative to specific rules of intergovernmental transfers.

This paper—a product of Public Services, Development Research Group—is part of a larger effort in the group to understand the determinants of public spending policies. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich, room MC3-311, telephone 202-473-7698, fax 202-522-1155, email address hsladovich @worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at skhemani @worldbank.org. (28 pages)

2916. Ex-ante Evaluation of Conditional Cash Transfer Programs: The Case of Bolsa Escola

François Bourguignon, Francisco H. G. Ferreira, and Phillippe G. Leite
(October 2002)

Cash transfers targeted to poor people, but conditional on some behavior on their part—such as school attendance or regular visits to health care facilities—are being adopted in a growing number of developing countries. Even where ex-post impact evaluations have been conducted, a number of policy-relevant counterfactual questions have remained unanswered. These are questions about the potential impact of changes in program design—such as benefit levels or the choice of the means-test—on both the current welfare and the behavioral response of household members. Bourguignon, Ferreira, and Leite propose a method to simulate the effects of those alternative program designs on welfare and behavior based on microeconometrically estimated models of household behavior. In an application to Brazil's recently introduced federal Bolsa Escola program, the authors find a surprisingly strong effect of the conditionality on school attendance, but a muted impact of the transfers on the reduction of poverty and inequality levels.

This paper—a product of the Poverty Team, Development Research Group—is part of a larger effort in the group to understand the impact of policies on the distribution of incomes. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, room MC3-556, telephone 202-473-3902, fax 202-522-1153, email address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at fbourguignon @worldbank.org, fferreira@worldbank.org, or pleite@worldbank.org. (31 pages)

2917. Economic Development, Competition Policy, and the World Trade Organization

Bernard Hoekman and Petros C. Mavroidis
(October 2002)

At the recent World Trade Organization (WTO) ministerial meeting in Doha, Qatar, WTO members called for the launch of negotiations on disciplines relating to competition based on explicit consensus on modalities to be agreed at the fifth WTO ministerial meeting in 2003. WTO discussions since 1997 have revealed little support for ambitious multilateral action. Proponents of the WTO antitrust disciplines currently propose an agreement that is limited to "core principles"—nondiscrimination, transparency, and provisions banning "hard core" cartels. Hoekman and Mavroidis argue that an agreement along such lines will create compliance costs for developing countries without addressing the anticompetitive behavior of firms located in foreign jurisdictions. To be unambiguously beneficial to low-income countries, any WTO antitrust disciplines should recognize the capacity constraints that prevail in these economies, make illegal collusive business practices by firms with international operations that raise prices in developing country markets, and require competition authorities in high-income countries to take action against firms located in their jurisdictions to defend the interests of affected developing country consumers. More generally, a case is made that traditional liberalization commitments using existing WTO fora will be the most effective means of lowering prices and increasing access to an expanded variety of goods and services.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to analyze "behind the border" policies that affect international trade. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Rebecca Martin, room MC3-303, telephone 202-473-9065, fax 202-522-1159, email address rmartin1 @worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at bhoekman @worldbank.org or petros.mavroidis@ droit.unine.ch. (32 pages)

2918. Reducing Agricultural Tariffs versus Domestic Support: What's More Important for Developing Countries?

Bernard Hoekman, Francis Ng, and Marcelo Olarreaga
(October 2002)

High levels of protection and domestic support for farmers in industrial countries significantly affect many developing countries, both directly and through the price-depressing effect of agricultural support policies. High tariffs—in both rich and poor countries—and domestic support may also lower the world price of agricultural products, benefiting net importers.

Hoekman, Ng, and Olarreaga assess the impact of reducing tariffs and domestic support in a sample of 119 countries. Least developed countries (LDCs) are disproportionately affected by agricultural support policies. More than 18 percent of LDC exports are subject to domestic support in at least one World Trade Organization (WTO) member, as compared to only 9 percent of their imports. For other developing countries the figures are around 4 percent for both their exports and imports. So, the prevailing pattern of trade suggests the world price-reducing effect of agricultural domestic support policies may induce a welfare loss in LDCs.

The authors develop a simple partial equilibrium model of global trade in commodities that benefit from domestic support in at least one WTO member. The simulation results suggest there will be large differences between LDCs and other developing economies in terms of the impact of a 50 percent cut in tariffs as compared to a 50 percent cut in domestic support. Developing countries as a group would suffer a welfare loss from a cut in support, while LDCs would experience a small gain. For both groups of countries, tariff reductions by WTO members—including own liberalization—will have a positive effect on welfare. The results show both the importance of focusing on tariffs as well as subsidies, and the need for complementary actions to allow a domestic supply response to occur in developing countries if world prices rise.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to analyze the effects of trade-related policies on developing countries. Copies of the paper are available free from the World Bank, 1818

H Street NW, Washington, DC 20433. Please contact Rebecca Martin, room MC3-303, telephone 202-473-9065, fax 202-522-1159, email address rmartin1 @worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at bhoekman @worldbank.org, fng@worldbank.org, or molarreaga@worldbank.org. (39 pages)

2919. Financial Regulatory Harmonization and the Globalization of Finance

Cally Jordan and Giovanni Majnoni
(October 2002)

In the globalizing economy, national policymakers are often forced to accept the challenge of financial integration. Faced with the potentially destabilizing effects of international financial markets, they have to strengthen financial regulation, importing international best practices and aligning domestic with foreign regulation, to avoid destabilizing phenomena of regulatory arbitrage. Jordan and Majnoni explore the main features of the ongoing process of worldwide financial regulatory convergence and the role played by the global dissemination of financial standards and codes. They analyze the reasons behind the generalized acceptance of international best practices and the limits of the standards and codes approach to financial regulatory harmonization.

This paper—a product of the Financial Sector Operations and Policy Department—is part of a larger effort in the department to study the impact of financial regulation on economic development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Helena Issa, room I5-112, telephone 202-473-0154, fax 202-522-2106, email address hissa @worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at cjordan@worldbank.org or gmajnoni@worldbank.org. (27 pages)

2920. Social Polarization, Political Institutions, and Country Creditworthiness

Philip Keefer and Stephen Knack
(October 2002)

The literature argues that the presence of multiple veto players (government decisionmakers) with polarized interests increases the credibility of sovereign commitments, but reduces the ability of governments to adjust policies in the event of exogenous shocks that jeopardize their ability to honor their commitments. In the case of sovereign lending, if the first effect prevails, countries would be regarded as more creditworthy; if the second, less.

Keefer and Knack address two issues. First, using measures of country creditworthiness, they ask whether the net effect of multiple veto players is positive or negative. Second, though, the authors go beyond the existing literature to argue that the net effect of multiple veto players depends on the nature of social polarization in a country. In particular, they argue that political competition is fundamentally different in countries exhibiting ethnic polarization than in countries polarized according to income or wealth. The evidence supports the prediction that multiple veto players matter *more* when countries are more ethnically polarized, but *less* when income inequality is greater.

This paper—a joint product of the Investment Climate and Public Services Teams, Development Research Group—is part of a larger effort in the group to understand the interaction of social polarization and institutions. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Sintim-Aboagye, room MC3-300, telephone 202-473-7656, fax 202-522-1155, email address psintimaboagye@worldbank. org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at pkeefer@worldbank.org or sknack @worldbank.org. (35 pages)

2921. Initial Conditions and Incentives for Arab Economic Integration: Can the European Community's Success Be Emulated?

Bernard Hoekman and Patrick Messerlin
(October 2002)

Hoekman and Messerlin compare the European Community's "trade fundamentals" prevailing in the 1960s with those applying in Arab countries today. The fundamentals differ significantly—Arab countries trade much less with each other than EC members did, and the importance of such trade in GDP varies greatly. This suggests that a viable Arab integration strategy must follow a path that differs from the preferential trade liberalization-led approach implemented by the European Community. An alternative is to complement long-standing attempts to liberalize merchandise trade with an effort that revolves around service sector reforms and liberalization. This may prove to be an effective mechanism to support reforms as, in principle, there is a major constituency in each Arab country that has an interest in improving the performance of services—the natural resource-based and manufacturing sectors. A key condition for such an approach to be feasible is that Arab cooperation helps overcome political economy resistance to national, unilateral action, or, generates direct gains from cooperation in specific policy areas. The EC experience suggests that a services-based integration strategy will be complex and must be carefully designed and sequenced. Given the importance of services-related trade and logistics transactions costs, a first step might focus on bringing such costs down through a concerted joint effort.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to investigate the economics of regional integration. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at bhoekman @worldbank.org or patrick.messerlin @sciences-po.fr. (43 pages)

2922. Does Globalization Hurt the Poor?

Pierre-Richard Agénor
(October 2002)

Agénor attempts to examine analytically and empirically the extent to which globalization affects the poor in low- and middle-income countries. He begins with a description of various channels through which trade openness and financial integration may have an adverse effect on poverty. However, the author also stresses the possible nonlinearities involved—possibilities that have seldom been recognized in the ongoing debate. Agénor then presents cross-country regressions that relate measures of real and financial integration to poverty. The regressions control for changes in income per capita and output growth rates, as well as various other macroeconomic and structural variables, such as the inflation tax, changes in the real exchange rate and the terms of trade, health and schooling indicators, and macroeconomic volatility. The author uses not only individual indicators of trade and financial openness but also a "globalization index" based on principal components analysis, and tests for both linear and nonlinear effects.

The results suggest the existence of a nonmonotonic, Laffer-type relationship between globalization and poverty. At low levels, globalization appears to hurt the poor; but beyond a certain threshold, it seems to reduce poverty—possibly because it brings with it renewed impetus for reform. So, globalization may hurt the poor

not because it went too far, but rather because it did not go far enough.

This paper—a product of the Poverty Reduction and Economic Management Division, World Bank Institute—is part of a larger effort in the institute to study the impact of globalization on the poor in developing countries. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Maria Gosiengfiao, room J4-282, telephone 202-473-3363, fax 202-676-9810, email address mgosiengfiao@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at pagenor@worldbank.org. (56 pages)

2923. Does Foreign Direct Investment Increase the Productivity of Domestic Firms? In Search of Spillovers through Backward Linkages

Beata K. Smarzynska
(October 2002)

Many countries compete against one another in attracting foreign investors by offering ever more generous incentive packages and justifying their actions with the productivity gains that are expected to accrue to domestic producers from knowledge externalities generated by foreign affiliates. Despite this being hugely important to public policy choices, there is little conclusive evidence indicating that domestic firms benefit from foreign presence in their sector. It is possible, though, that researchers have been looking for foreign direct investment (FDI) spillovers in the wrong place. Multinationals have an incentive to prevent information leakage that would enhance the performance of their local competitors in the same industry but at the same time may want to transfer knowledge to their local suppliers in other sectors. Spillovers from FDI may be, therefore, more likely to take place through backward linkages—that is, contacts between domestic suppliers of intermediate inputs and their multinational clients—and thus would not have been captured by the earlier literature.

This paper focuses on the understudied issue of FDI spillovers through backward linkages and goes beyond existing studies by shedding some light on factors driving this phenomenon. It also improves over existing literature by addressing several econometric problems that may have biased the results of earlier research. Based on a firm-level panel data set from Lithuania, the estimation results are consistent with the existence of productivity spillovers. They suggest that a 10 percent increase in the foreign presence in downstream sectors is associated with 0.38 percent rise in output of each domestic firm in the supplying industry. The data indicate that these spillovers are not restricted geographically, since local firms seem to benefit from the operation of downstream foreign affiliates on their own, as well as in other regions. The results further show that greater productivity benefits are associated with domestic-market, rather than export-oriented, foreign affiliates. But no difference is detected between the effects of fully-owned foreign firms and those with joint domestic and foreign ownership.

The findings of a positive correlation between productivity growth of domestic firms and the increase in multinational presence in downstream sectors should not, however, be interpreted as a call for subsidizing FDI. These results are consistent with the existence of knowledge spillovers from foreign affiliates to their local suppliers, but they may also be a result of increased competition in upstream sectors. While the former case would call for offering FDI incentive packages, it would not be the optimal policy in the latter. Certainly more research is needed to disentangle these two effects.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to study the contribution of trade and foreign direct investment to technology transfer. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at bsmarzynska @worldbank.org. (29 pages)

2924. Financial Development, Property Rights, and Growth

Stijn Claessens and Luc Laeven
(November 2002)

Claessens and Laeven analyze how property rights affect the allocation of firms' available resources among different types of assets. In particular, they investigate empirically for a large number of countries whether firms in environments with more secure property rights allocate available resources more toward intangible assets and consequentially grow faster.

The authors find that improved asset allocation due to better property rights has an effect on growth in sectoral value added equal to improved access to financing arising from greater financial development. The results are robust, using various samples and specifications, including controlling for growth opportunities.

This paper—a product of the Policy Division, Financial Sector Strategy and

Policy Department—is part of a larger effort in the department to study the link between finance and growth. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Rose Vo, room MC9-624, telephone 202-473-3722, fax 202-522-2031, email address hvo1@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at stijn@fee.uva.nl or llaeven @worldbank.org. (47 pages)

2925. Crime and Local Inequality in South Africa

Gabriel Demombynes
and Berk Özler
(November 2002)

Demombynes and Özler examine the effects of local inequality on property and violent crime in South Africa. Their findings are consistent with economic theories relating inequality to property crime, and also with sociological theories that imply that inequality leads to crime in general. Burglary rates are 20–30 percent higher in police station jurisdictions that are the wealthiest among their neighbors, suggesting that criminals travel to neighborhoods where the expected returns from burglary are highest. The authors do not find evidence that inequality between racial groups fosters interpersonal conflict at the local level.

This paper—a product of the Poverty Team, Development Research Group—is part of a larger effort in the group to understand the relationship between income inequality and various outcomes, such as crime, health, and pro-poor growth. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, room MC3-556, telephone 202-473-3902, fax 202-522-1153, email address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at gabriel @demog.berkeley.edu or bozler @worldbank.org. (62 pages)

2926. Distinguishing between Observationally Equivalent Theories of Crises

Rashmi Shankar
(November 2002)

The objective of this paper is to empirically test across alternative, apparently observationally equivalent theories of currency crises. Theories of crises are often difficult to distinguish from each other based on the behavior of commonly used predictors. Using a comprehensive data set on gross external assets and liabilities for 167 countries created by the World Bank's Latin America and the Caribbean Region and the Development Research Group, this study is able to make a significant move toward redressing this shortcoming. It focuses on identifying potential crisis predictors, as well as testing the validity of the distinct transmission mechanisms implied by various theories of currency crisis. Evidence is presented in support of insurance-based models, suggesting that proxies for contingent liability accumulation are effective crisis predictors.

This paper—a product of the Office of the Chief Economist, Latin America and the Caribbean Region—is part of a larger effort in the region to promote a deeper understanding of the causes and consequences of balance-of-payments crises. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Holt, room I8-168, telephone 202-473-7707, email address pholt @worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at rshankar @worldbank.org. (38 pages)

2927. Military Expenditure: Threats, Aid, and Arms Races

Paul Collier and Anke Hoeffler
(November 2002)

Using global data for the period 1960–99, Collier and Hoeffler estimate neighborhood arms races. They find that the level of military expenditure is strongly influenced by the expenditure of neighbors. The authors estimate an "arms race multiplier," finding that an initial exogenous increase in military expenditure by one country is more than doubled in both the originating country and its neighbor. An implication is that military expenditure is, to an extent, a "regional public bad." Potentially, there is an offsetting public good effect if rebellions are deterred by military expenditure. However, instrumenting for military expenditure, the authors find no deterrence effect of military spending on the risk of internal conflict. So there appears to be no regional public good effect offsetting the public bad arising from a neighborhood arms race.

This paper—a product of the Development Research Group—is part of a larger effort in the group to study the economics of conflict. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Audrey Kitson-Walters, room MC3-527, telephone 202-473-3712, fax 202-522-1150, email address akitsonwalters@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at pcollier@worldbank.org or anke.hoeffler @economics.ox.ac.uk. (23 pages)

2928. Growth Without Governance

Daniel Kaufmann and Aart Kraay
(November 2002)

It is well known that there is a strong positive correlation between per capita incomes and the quality of governance across countries. Kaufmann and Kraay propose an empirical strategy that allows separation of this correlation into (1) a strong positive causal effect running from better governance to higher per capita incomes, and, perhaps surprisingly at first, (2) a weak and even *negative* causal effect running in the opposite direction from per capita incomes to governance.

The first result confirms existing evidence on the importance of good governance for economic development. The second result is new and suggests the absence of a "virtuous circle" in which higher incomes lead to further improvements in governance. This motivates the authors' choice of title, "Growth Without Governance." They document this evidence using a newly updated set of worldwide governance-indicators covering 175 countries for the period 2000–01, and use the results to interpret the relationship between incomes and governance focusing on the

Latin America and Caribbean region—within a worldwide empirical context. Finally, the authors speculate about the potential importance of elite influence and state capture in accounting for the surprising negative effects of per capita incomes on governance, present some evidence on such capture in some Latin American countries, and suggest priorities for actions to improve governance when such pernicious elite influence shapes public policy.

This paper—a joint product of the World Bank Institute and the Development Research Group—is part of a larger effort in the Bank to generate and analyze worldwide governance indicators, assessing the manifestations and consequences of governance. The full governance indicators dataset is available interactively at http://www.worldbank.org/wbi/governance/govdata2001.htm. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Kevin Morgan, room J3-273, telephone 202-473-7798, fax 202-676-9874, email address kmorgan@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at dkaufmann@worldbank.org or akraay@worldbank.org. (50 pages)

2929. Assessing the Impact of Communication Costs on International Trade

Carsten Fink, Aaditya Mattoo, and Ileana Cristina Neagu
November 2002)

Recent research suggests that trade costs have a strong influence on the pattern of specialization and trade, but there is limited empirical research on the determinants of trade costs. The existing literature identifies a range of barriers that separate nations, but then typically focuses only on transport costs. Although communication costs figure prominently in intuitive explanations and casual observations, they have played little role in the formal analysis of trade costs. Fink, Mattoo, and Neagu seek to examine whether this neglect matters, and whether the inclusion of the magnitude and variation of communication costs across partner countries can add value to existing explanations of the pattern of trade.

The authors develop a simple multi-sector model of "impeded" trade that generates testable hypotheses in a gravity-type estimation framework. The main proxies for bilateral communication costs are the per-minute country-to-country calling prices charged in the importing and exporting countries. The use of bilateral variations in prices yields estimates that are superior to the ones obtained from country-specific measures of communication infrastructure used in previous studies. The authors find that international variations in communication costs indeed have a significant influence on bilateral trade flows—both at the aggregate level and for most individual sectors disaggregated according to the 2-digit SITC classification.

Since information and communication needs are likely to be much greater for differentiated goods, the authors test whether trade in these products is more sensitive to variations in the costs of communication. Using the Rauch classification of product heterogeneity, the estimates suggest that the impact of communication costs on trade in differentiated products is as much as one-third larger than on trade in homogenous products. Finally, the authors verify, to the extent possible, that the significance of communication costs is not driven by their endogeneity or by omitted variables.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to assess the implications of liberalizing trade in services. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at cfink@worldbank.org, amattoo@worldbank.org, or ineagu@worldbank.org. (38 pages)

2930. Land Rental Markets as an Alternative to Government Reallocation? Equity and Efficiency Considerations in the Chinese Land Tenure System

Klaus Deininger and Songqing Jin
(November 2002)

Deininger and Jin develop a model of land leasing with agents characterized by unobserved heterogeneity in ability and presence of an off-farm labor market. In this case, decentralized land rental may contribute to equity and efficiency goals and may have several advantages over administrative reallocation. The extent to which this is true empirically is explored using data from three of China's poorest provinces. The authors find that both processes redistribute land to those with lower endowments but that land rental markets are more effective in doing so and also have a larger productivity-enhancing effect than administrative reallocation, implying that more active land rental markets would allow producers to realize significant productivity gains. At the same time, the presence of a large number of producers whose participation in rental markets remains constrained suggests that efforts to reduce transaction costs in land rental markets would be warranted.

This paper—a product of Rural Development, Development Research Group—is part of a larger effort in the group to assess the impact of policy on land markets. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Maria Fernandez, room MC3-542, telephone 202-473-3766, fax 202-522-1151, email address mfernandez2@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at kdeininger@worldbank.org or sjin@worldbank.org. (39 pages)

2931. The Impact of Property Rights on Households' Investment, Risk Coping, and Policy Preferences: Evidence from China

Klaus Deininger and Songqing Jin
(November 2002)

Even though it is widely recognized that giving farmers more secure land rights may increase agricultural investment, scholars contend that, in the case of China, such a policy might undermine the function of land as a social safety net and, as a consequence, not be sustainable or command broad support. Data from three provinces, one of which had adopted a policy to increase security of tenure in advance of the others, suggest that greater tenure security, especially if combined with transferability of land, had a positive impact on agricultural investment and, within the time frame considered, led neither to an increase in inequality of land distribution nor a reduction in households' ability to cope with exogenous shocks. Household support for more secure property rights is increased by their access to other insurance mechanisms, suggesting some role of land as a safety net. At the same time, past exposure to this type of land right has a much larger impact quantitatively, suggesting that a large part of the resistance to changed property rights arrangements disappears as household familiarity with such rights increases.

This paper—a product of Rural Development, Development Research Group—is part of a larger effort in the group to assess the impact of land market policy. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Maria Fernandez, room MC3-542, telephone 202-473-3766, fax 202-522-1151, email address mfernandez2@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at kdeininger@worldbank.org or sjin@worldbank.org. (34 pages)

2932. China's Accession to the World Trade Organization: The Services Dimension

Aaditya Mattoo
(December 2002)

China's General Agreement on Trade in Services (GATS) commitments represent the most radical services reform program negotiated in the World Trade Organization. China has promised to eliminate over the next few years most restrictions on foreign entry and ownership, as well as most forms of discrimination against foreign firms. These changes are in themselves desirable. However, realizing the gains from, and perhaps even the sustainability of, liberalization will require the implementation of complementary regulatory reform and the appropriate sequencing of reforms. Three issues, in particular, merit attention:

- Initial restrictions on the geographical scope of services liberalization could encourage the further agglomeration of economic activity in certain regions—to an extent that is unlikely to be reversed completely by subsequent countrywide liberalization.
- Restrictions on foreign ownership (temporary in most sectors but more durable in telecommunications and life insurance) may dampen the incentives of foreign investors to improve firm performance.
- Improved prudential regulation and measures to deal with the large burden of nonperforming loans on state banks are necessary to deliver the benefits of liberalization in financial services. And in basic telecommunications and other network-based services, meaningful liberalization will be difficult to achieve without strengthened pro-competitive regulation.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to assess the implications of services trade reform. This research is supported in part by the U.K. Department for International Development. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at amattoo@worldbank.org. (30 pages)

2933. Small- and Medium-Size Enterprise Financing in Eastern Europe

Leora F. Klapper, Virginia Sarria-Allende, and Victor Sulla
(December 2002)

There is currently a large interest in understanding firms' access to finance, particularly in the financing of small- and medium-size enterprises (SMEs). But the financing patterns of SMEs across countries is not well understood. For example, little is known about the relative importance of equity, debt, and interfirm financing for SMEs across countries.

The authors use the Amadeus database, which includes financial information on over 97,000 private and publicly traded firms in 15 Eastern and Central European countries. The Amadeus database allows the authors the opportunity to provide a new analysis of the general financing patterns of private firms across a large sample of Eastern European countries. The summary statistics show that the size of the SME sector (as measured by the percentage of total employment) in Eastern European countries is smaller than in most developed economies. Although the authors find in almost every country in the sample a large number of SMEs as a percentage of total firms, the SMEs in Eastern Europe are generally small and hire few employees. However, SMEs seem to constitute the most dynamic sector of the Eastern European economies, relative to large firms. In general, the SME sector comprises relatively younger, more highly leveraged, and more profitable and faster growing firms. This suggests that a new type of firm is emerging in transition economies that is more market- and profit-oriented. But at the same time, these firms appear to have financial constraints that impede their access to long-term financing and ability to grow.

This paper—a product of Finance, Development Research Group—is part of a larger effort in the group to better understand small- and medium-size enterprise financing. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Agnes Yaptenco, room MC3-446, telephone 202-473-1823, fax 202-522-1155, email address ayaptenco@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at lklapper@worldbank.org, vs189@columbia.edu, or vsulla@worldbank.org. (52 pages)